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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,425	07/10/2001	Hans-Stephan Albrecht	LMPY-12910	8935

7590 11/04/2002
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EXAMINER

VY, HUNG T

ART UNIT PAPER NUMBER

2828

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,425

Applicant(s)

ALBRECHT ET AL.

Examiner

Hung T Vy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/01/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. In response to the communications dated 07/10/2001, claims 1-20 are pending in this application.

Specification

2. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Claim 20 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 1-8. See MPEP § 608.01(n). Accordingly, the claim 20 not been further treated on the merits.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another

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who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-14 and 20 are rejected under 35 U. S. C. § 102 (e) as being anticipated by zorabedian et al., U.S. patent No. 6,282,215.

Regarding claims 1-9, the methods of compensating optical are considered as apparatus by process steps. Therefore, Zorabedian et al. disclose a compensating optical drift of a wavelength measurement system, comprising the steps of:

(a) operating the laser system including generating a laser beam and directing a beam portion through the wavelength measurement system (Fig 10 A);

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(b) calibrating the wavelength measurement system to an absolute reference (in memory 1004 in fig 9);

(c) Determining the wavelength of the laser beam, said wavelength determining step comprising the steps of:

(i) transmitting wavelength information measured by said wavelength measurement system;

(ii) retrieving a drift compensation value stored as corresponding to a current laser system operating condition; and

(iii) calculating the wavelength of the laser beam based on the transmitted wavelength information and the retrieved drift compensation value (See column 15, line 47-67 and column 16, line 1-8) ; and

(c) tuning (190) the output beam to a target wavelength using the wavelength measurement system (See fig 6 and fig 10A);

(d) detecting a measured wavelength of the output beam using the wavelength measurement system (1020) after a predetermined period of laser operation(See column 15, line 47-67 and column 16, line 1-8).

(e) calculating a compensated wavelength by figuring in a previously determined drift compensation value(See column 15, line 47-67 and column 16, line 1-8 and column 12, line 6-20); and

(f) adjusting the wavelength of the laser beam to the target wavelength when the compensated wavelength differs from the target wavelength (See column 5, line 26-28).

Regarding claims 10-14, Zerabeian et al disclose the method, wherein the wavelength measurement system comprises a monitor etalon (See column 6, line 60-64), the drift compensation values are determined by comparing wavelength values determined using the monitor etalon with values determined using a calibrated spectrometer (1020) in a test run. It is inherent that the drift compensation values are tabulated with each entry in a table corresponding to a drift compensation value at a different amount of laser operation for a give set of laser operation conditions because Zerabeian et al disclose the cpu (820) and memory (824).

Regarding claim 20, it is inherent that Zerabeian et al. disclose a software program running on a computer system coupled with a laser system, the computer system including a processor, wherein the program provides instructions to the processor to control the laser system to operate according to the steps set forth because CPU has to have a software program to run.

Claim Rejections - 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 15-19 rejected under 35 U.S.C. 103 (a) as being unpatentable over Zorabedian et al., U.S. patent No. 6,282,215 in view of Myers et al., U.S. Patent No. 6,128,323.

Regarding claim 15-19, the methods of compensating optical are considered as apparatus by process steps. Therefore, Zorabedian et al. disclose a compensating optical drift of a wavelength measurement system, wherein different tables are generated corresponding to differing values of laser operation conditions (in memory 824) but Zorabedian et al. do not disclose the amount of laser operation is measured versus a parameter that generally increases as the laser operates, wherein that parameter is selected from the group of parameters consisting of as time, pulse count, input energy to the discharge, and total output energy and at least one condition selected from the group of conditions consisting of repetition rate, burst rate, output power, optical arrangement, discharge conditions, gas mixture composition, gas mixture age, age of laser chamber and age of resonator optics. However, Myers et al. disclose parameters consisting as time, pulse count (See column 11, line 60), and gas mixture composition (See column 17, line 6-22)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify to have a parameter that generally increases as the laser operates because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention. It would have been obvious to provide Zorabedian et al. with the limitation as taught and suggested by Myers et al.

Citation of Pertinent References

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Endoh et al. disclose Tunable Wavelength Light Source Apparatus For Stabilizing Power Intensity by using External Auto-Power Control, U.S. Patent No. 5,754,571.

The patent to Everage et al. disclose Wavelength Shift Correction Technique for a Laser, U.S. Patent No. 6,078,599.

Conclusion

7. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung VY whose telephone number is (703) 605-0759.


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The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Hung T. Vy
Art Unit 2828

October 31, 2002


PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800